

## Claims

[c1] A torque table apparatus for installing a secondary string of tubulars into a borehole, the torque table apparatus comprising:

- a base assembly to centralize and retain a primary string of tubulars;
- a stripping table to position and retain the secondary string of tubulars;
- said stripping table positioned with relation to said base assembly on order to define a preferred relationship between said primary string and the secondary string of tubulars;
- said base assembly including a stop tower assembly, said stop tower including a load cell;
- a first wrench to grip the secondary string below a tool joint of interest, said first wrench configured to abut said load cell;
- a second wrench to grip the secondary string above said tool joint of interest, said second wrench configured to apply torque to said tool joint of interest when said second wrench is moved relative to said first wrench in a make-up direction; and
- said load cell configured to display a reading as said second wrench is moved in said make-up direction.

[c2] The torque table apparatus of claim 1 wherein said load cell is a digital device.

[c3] The torque table apparatus of claim 2 wherein said digital device is configured to display a calibrated torque number for any given force applied thereon.

[c4] The torque table apparatus of claim 1 wherein said load cell is an analog device.

[c5] The torque table apparatus of claim 1 wherein the stop tower assembly is retractable.

[c6] The torque table apparatus of claim 5 wherein the height of the stop tower assembly is adjustable.

[c7] The torque table apparatus of claim 1 wherein said preferred relationship includes the secondary string disposed within a central bore of said primary string.

[c8] The torque table apparatus of claim 7 wherein said stripping table is connected atop a primary tool joint of said primary string of tubulars.

[c9] The torque table apparatus of claim 1 wherein said preferred relationship includes the secondary string disposed within an annulus defined between said primary string and the borehole.

[c10] The torque table apparatus of claim 9 wherein said stripping table is connected to said base assembly adjacent to said primary string of tubulars.

[c11] The torque table apparatus of claim 1 wherein said stripping table includes a bowl and slip assembly to secure the secondary string of tubulars.

[c12] The torque table apparatus of claim 1 wherein said base assembly includes a C-shaped body to enclose and centralize said primary string of tubulars.

[c13] A method for torquing a secondary string of tubulars for deployment into a wellbore, the method comprising the steps of:  
securing a primary string of tubulars to prevent axial and radial movement thereof;  
installing a torque table assembly around the primary string, the torque table assembly configured to position the secondary string with respect the primary string in a preferred arrangement, and provide a stop tower for torquing the secondary string;  
attaching a first wrench to the secondary string, the first wrench configured to abut a load cell attached to the stop tower, the first wrench positioned below a tool joint of interest; and  
engaging a second wrench with the secondary string, the second wrench positioned above the tool joint of interest and configured to increase torque in the tool joint of interest as the second wrench is rotated relative to the first wrench; and  
rotating the second wrench with respect to the first wrench until a desired reading is displayed upon the load cell.

[c14] A method for torquing a secondary string of tubulars into a wellbore, the method comprising the steps of:

securing a primary string of tubulars to prevent axial and radial movement therof;

placing a base assembly around the primary string, the base assembly configured to hold the primary string in a radial position;

attaching a stripping table to the base assembly, the stripping table configured in a relative position with respect to the primary string, the relative position defining a downhole relationship between the primary string and the secondary string;

hanging the secondary string of tubulars in the stripping table, the stripping table further configured to selectively restrict axial movement of the secondary string;

attaching a first wrench to the secondary string, the first wrench configured to abut a load cell attached to a stop tower, and the first wrench positioned below a tool joint of interest;

engaging a second wrench with the secondary string, the second wrench positioned above the tool joint of interest and configured to increase torque in the tool joint of interest as the second wrench is rotated relative to the first wrench; and

rotating the second wrench with respect to the first wrench until a desired reading is displayed upon the load cell.

[c15] An apparatus for holding a first tubular while connecting a second tubular at a specified torque for insertion in the bore of the first tubular, the apparatus comprising:

a means for centralizing the first tubular below a plate;

a means on the plate for restraining the second tubular from movement;

a telescoping support means for holding a load cell connected to the centralizing means laterally adjacent the second tubular;

a torque arm extending from the second tubular to the load cell; and,

a torque-applying means for applying torque to the second tubular, the torque-applying means attached adjacent the torque arm.

[c16] An apparatus for connecting oilfield tubulars, the apparatus comprising:

a base providing a longitudinal passage therethrough;

a longitudinally telescoping stop tower attached to said base;  
a table attached to said base providing an adjustable plate for centralizing  
a first tubular in said longitudinal passage of said base;  
said first tubular having a bore therethrough;  
a stripping plate having an aperture therethrough, said stripping plate  
attached to the top of said first tubular;  
a bowl assembly disposed on said stripping plate;  
a pipe slip seated in said bowl assembly engaging a second tubular for  
insertion into said bore;  
a torque arm releasably attached to said second tubular and engaging a  
load cell mesial the distal end of the torque arm;  
a telescoping stop tower for measuring torque applied to the second  
tubular; and,  
a tong releasably attached adjacent the torque arm for applying torque to  
the second tubular.

[c17] A method for holding a first tubular while connecting a second tubular to a specified torque for insertion in the annulus of said first tubular comprising:  
centralizing a first tubular below a plate;  
restraining a second tubular from movement by compressive engagement on a table attached to said first tubular;  
holding a load cell laterally adjacent the second tubular by attaching to a fixed telescoping member;  
extending a torque arm from said second tubular to said load cell; and,  
applying torque to said second tubular attached adjacent said torque arm to a predetermined amount.